Instrumentation

SRA1400-4 Shock Instrument

M/RAD Model SRA-1400-4, Four Channel Digital Shock Pulse Instrumentation System to capture, display and analyze half-sine, sawtooth and square wave pulses:
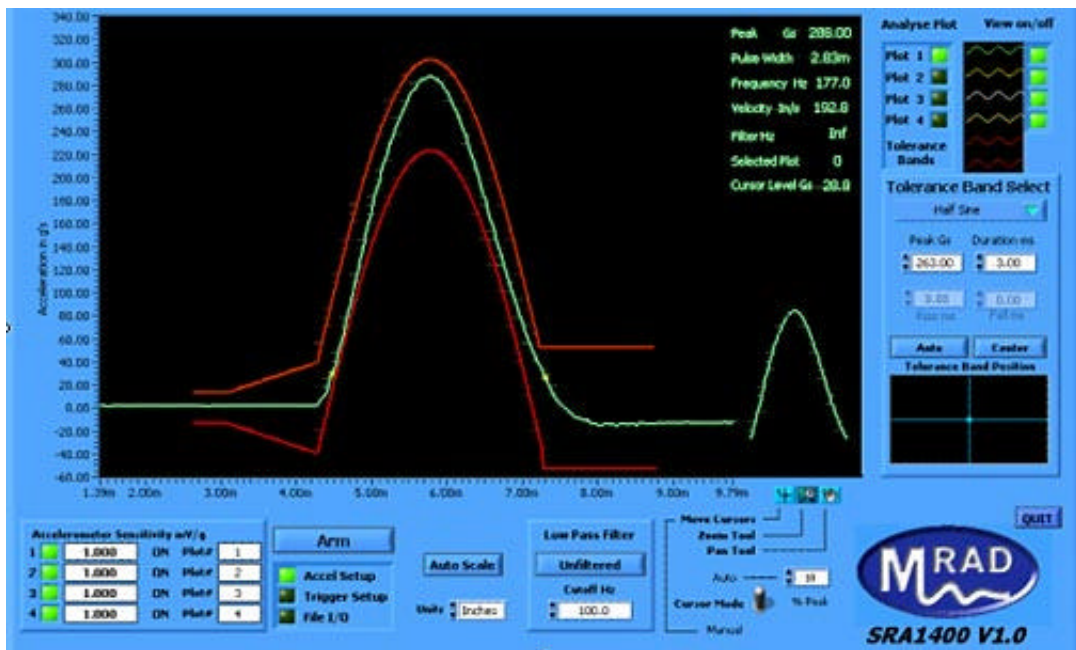
Integrated System for Shock Pulse Capture, Display and Analysis

The system includes 4 main building blocks. These blocks are the Signal Conditioning, Digitizer, Computer and Special Analysis Software. These building blocks are described below.

Signal Conditioning:
The Signal Conditioning for this system is comprised of transducer buffer and scaling. These circuits represent the waveform recorder with a normalized full-scale input regardless of transducer sensitivity.

Digitizer:
The Digitizer is an SRA-1400-4 data acquisition board which is a complete four channel waveform recorder. This recorder is a PCI board which resides inside the computer enclosure. The shock pulse is used to self-trigger the recording and the system will automatically back record to provide a pulse record which starts before the shock pulse begins.
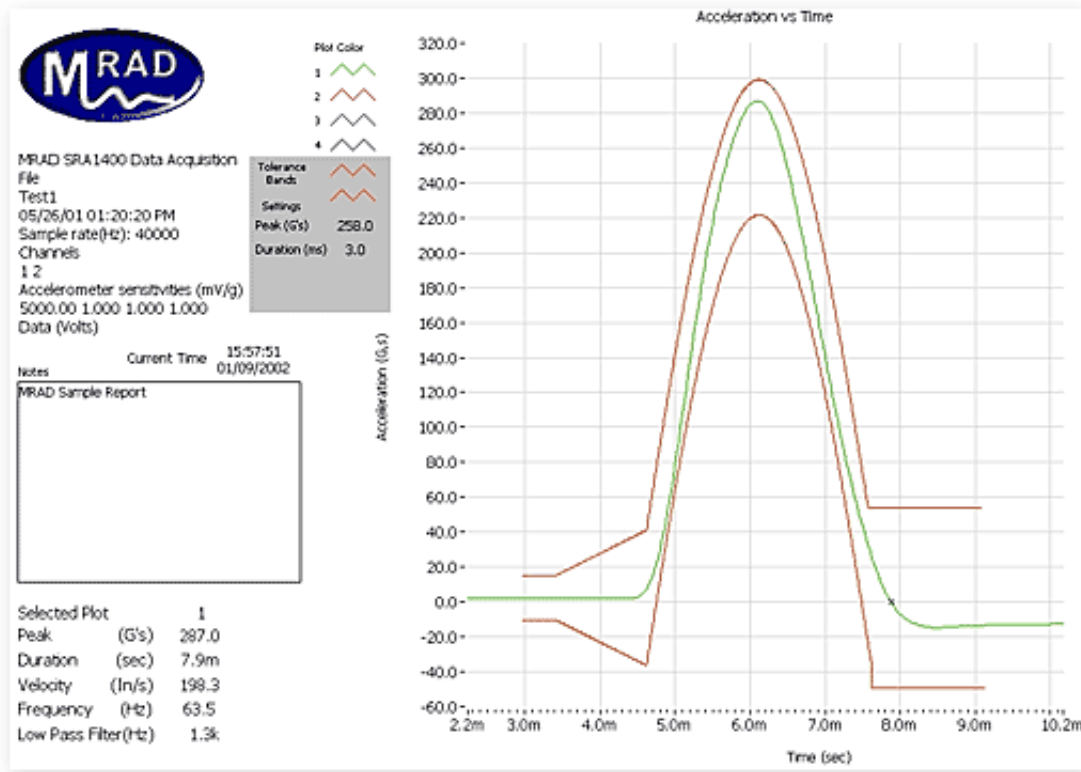
Computer minimum requirements:

1. 400 MHz CPU
2. 64 Meg's Ram
3. 1 open PCI slot (PCMCIA slot for a laptop)
4. 10 Mb of hard drive space
5. Screen resolution 1024 x 768 min
6. Color printer (optional)

Analysis Software:

The special analysis software provides easy-to-use operator interface. All of the functions mentioned below are activated by the mouse.

Waveform reports

Waveform reports may be printed or saved as an image file. There is a notes window provided for the user to store information about the test. The scale, line color and style of this plot are user adjustable.

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